Item 15

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Homework

A decade of research

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HOMEWORK IS A TRADITION that has survived waves of enthusiasm and of disenchantment. The famous report in the USA called *A Nation at Risk*, prescribed 'more homework' as one remedy for education's many ills. Other reports, however, caution that homework hasn't produced the benefits claimed for it; more of the same medicine isn't the answer, they assert. This report examines the case for homework in the light of recent research and expert testimony. The review concludes with recommendations for principals and teachers who want to make the most of homework's potential.

Arguments for homework

Many benefits are claimed for homework

(1) It builds self-discipline, personal responsibility, independent action.

(2) It develops thinking, concentration, time management and research skills.

(3) It provides opportunities to learn about and to use out-of-school resources.

(4) It provides parents with opportunities to build bonds with their children by being helpful, and it gives parents windows on the child's school experience.

(5) Students develop more positive attitudes toward themselves and learning as they successfully complete significant skill-building assignments.

(6) It saves youngsters from negative pastimes (excessive TV-viewing and 'hanging out') and exposes them to realities of post-secondary study and some adult jobs.

(7) This 'opportunity-to-learn' reinforces and extends class work and enhances learning and test scores.

Arguments against homework

FRIESEN IN 1978 reviewed all the studies about homework from 1916. He concluded that the attitudes to homework of parents, students, and teachers have changed little. However, opinion has always been divided within each group. There is most agreement that homework is not for students under 10 years of age and that more than one hour of homework a night for pre-teens should be discouraged unless it is truly voluntary. Some parents feel that schools are failing in their job if homework is not assigned. In 1930–40 and 1970–80, when homework was in general disfavour, there were strong fears expressed that homework created mental health problems and robbed children of their leisure time and sleep.

***Parents** have additional concerns about homework,* usually expressed when

(1) the purposes of homework in general or an assignment in particular are quite unclear or appear to be 'busywork';

(2) they are unable to help their children due to their own outdated knowledge, lack of guidance in how to help, or pressure on their time;

(3) clashes with their children occur because they refuse to do homework or with teachers because of problems associated with homework.

Some parents' experience with homework has been full of confusion, frustration, and guilt. Helping children with learning disabilities is especially difficult if parents do not have specific help from the school.

***Students** mainly look upon homework as a necessary evil.* The younger tend to accept uncritically the claim made for homework. Students who have problems with homework may develop non-productive coping strategies, such as feigning illness or finding excuses for homework evasion. They may have difficulties not only with parents and teachers, but with their own self-images. Studies, including recent Canadian research found the following students' objections to homework:

(1) The quantity of homework is too great and teachers are either unaware of this or not prepared to co-ordinate their assignments.

(2) Homework is unequally distributed among subjects and also among particular times (e.g., heavy loads for weekends) and this deprives students of needed 'breaks'.

(3) It is immoral to deprive students of time for personal interests (e.g., sports, dramatics, music), for employment, for helping out at home, and for rest.

(4) Homework is frustrating when achievement or recognition doesn't follow.

(5) Homework can become a repetitious drill, given and taken in without much variety or joy.

(6) When homework is not taken in for marking, the student who has devoted time and effort feels frustrated.

(7) The same 'blanket' homework assignments are given to all students regardless of individual differences and some students just can't handle the work.

***Educators**, even those who favour homework, see problems*

(1) Under-supervised homework leads to sloppy habits, copying, learning wrong answers.

(2) Extensive writing assignments (e.g., English essays) require more marking time than teachers can find if they are to do justice to the task.

(3) Homework takes time and effort and the evidence that it delivers the benefits it promises is either lacking or inconclusive.

(4) Homework is an admission that the schools can't get the job done in the time they have with children.

(5) Rather than becoming more effective and efficient, schools poach on the time students need for other human growth activities.

(6) As commonly assigned, homework does little for the student who cannot read or write well or has a short attention span, except to re-affirm a sense of failure.

Student attitudes, character and skills development

THE CLAIMS THAT HOMEWORK develops desirable character traits and personal skills have seldom been researched, but the relationship between homework and attitude to school work has. Studies before 1980 rarely found a significant relationship. Studies published since then report an association between homework and attitude to science and mathematics. In a study for the York Region Board of Education, Canada, Raphael and Wahlstrom in 1986 found a similar relationship. However, attitude and achievement also had a significant relationship. In these studies the direction of the association between homework and attitude is unproven. Ability, motivation, and home support factors are hard to separate; causal relationships are unclear.

Homework and achievement

CURRENTLY, there is some belief that (more) homework means higher academic performance (as measured by standardised achievement tests). Examining this claim is what most recent research on homework is about. However, most research on homework's relationship to achievement so far is not experimental: the conclusions rest on soft data, such as students' reports of time they spent studying. The experimental studies often involved high school students assigned homework plus a 'no homework' control group.

These studies, experimental, partly experimental, or correlational (examining relationships, not necessarily causal) are inconclusive. In 1980, little had changed since Knorr in 1969 reviewed 17 'credible' studies. Homework correlated with achievement four times, but didn't in four cases. In the other nine, 'results were mixed'. Austin in 1979 found 16 mathematics studies showing homework had a significant relationship with achievement and 13 studies where it didn't. Friesen, also in 1979 reviewed 24 studies and found insufficient evidence to endorse homework as an unfailing means of increasing achievement.

By the 1980s researchers were challenging this conclusion, and challenging each other. Coleman and colleagues in 1982 reported that in public and private schools time spent on homework accounted for small but consistent differences in test scores. Walberg and associates in 1985 analysed 15 studies and concluded that achievement and attitudes improve as a result of homework, more so if it is graded or commented upon by teachers. However, Barber in 1986 reviewed the same studies and *refuted* most of the claims. He found that where achievement rose, it was minimal for the effort expended. Moreover, gains could be from other factors, e.g., tutoring. Otto in 1985 analysed the 'best 81 research studies': 69 showed a significant effect for homework. There *is* agreement on one thing: homework does *not* result in *lower* achievement!

Using more precise techniques, a study by Dunn in 1985 and four other studies in 1986 indicate that the *effects* of homework vary by *type* and *quality* of homework assignment and *when* and *why* it was given. Homework to reinforce what was introduced in class, especially when spread over a period of time and targeted for different learning needs and styles, seems most productive. There appears to be only marginal returns for high school homework efforts beyond about nine hours a week. Skills exercises in Maths problem-solving clearly benefit elementary learners. Raphael and associates found geometry, algebra and measurement homework pays off, but perhaps homework in arithmetic and ratio/proportion problems doesn't. Raphael and Wahlstrom suggest that 13-year-olds' achievement in certain mathematics topics correlates not only with greater time spent on mathematics homework, but even more so with total homework time spent on all subjects.

To sum up: present conventional wisdom views homework as beneficial when appropriate conceived, explained, assigned, and taken in for marking. But unambiguous 'hard evidence' is still lacking.

Building a School Homework Policy

SCHOOLS WHICH WANT TO MAKE THE MOST OF HOMEWORK should develop an understanding among staff, or a formal policy. There is now some literature on developing school homework policies. It is weak on how policies are to be communicated to teachers, students, and parents, but it is based on successful experience in the pre-implementation phases. There are common recommendations:

(1) A staff–parent committee to revise or create a consensus statement of goals for homework is a good idea. Research, as reported in this item may be consulted, polls taken of teachers or parents, or experts consulted.

(2) Set a staff team to review the proposed goals to see whether

(a) they might best be achieved by changing in-class activities,

(b) they need additional resources (in homes and the community as well as in the school resource centre),

(c) they need organising procedures or 'tools', such as checklists, study guides, 'homework hotlines' or 'homework organisers'.

(3) Determine what professional development activities, physical changes in the school environment, or additional materials, etc., can be provided by administrative officials.

(4) Encourage teachers, students and parents to accept and understand the goals, requirements, and time lines (as applicable) for the policy to go into effect.

Research and the classroom teacher

TEACHERS WILL PROBABLY WORK BEST if there is a school policy. But they need not wait upon one in order to review their practices in the light of research or expert testimony. Teachers may go further by, for example, polling their students on their perceptions of homework. Teachers are advised to do the following:

(1) *Tie assignments to*

(a) day-to-day and on-going programme concerns,

(b) individual learning needs, styles and abilities,

(c) resources that students can readily access,

(d) the teachers' time resources, as assignments should normally be commented upon or graded,

(e) students' needs for a variety of skill-developing activities.

(2) Make the assignments clear and the purposes known. Show how to do an assignment if students do not know what skills they have to use to do the task. Let students ask about assignments before they start and let them begin in class so they can call for help if unable to proceed.

(3) Co-ordinate homework with other staff. In primary school this may mean developing plans for study skills development. In secondary schools it means, at least, determining that the sum of all teachers' demands do not exceed a reasonable homework load.

(4) Vary homework assignments and, when possible, make them fun to do. Help students develop 'non-academic' skills and interests in preparing work or presenting what they've learned – in a song, a mime, a limerick, photos, a collection e.g., a 'time capsule', or something constructed.

(5) Use the different types of homework with awareness of purposes, requirements, and problems of each. Lee and Pruitt describe four types of assignments:

Practice, to reinforce classroom learning. Most useful when individualised and spread over time. Skill mastery is a common objective.

Preparation, in advance of a subsequent lesson, often demands 'pre-reading' (reading specialists caution that this may not be advisable for poor readers). Over-emphasis on reading may be avoided sometimes by 'assigning' a relevant TV show or the gathering of data from everyday experience.

Extension assignments permit students to apply a skill or concept to a 'new situation'. Transfer and higher order intellectual skills may be thus developed.

Creative homework requires integration of many skills and concepts to produce 'new learning'. Analysis, synthesis, and evaluation skills may be involved. The product may be anything from a book review, to a research report, to a musical skit relevant to the topic. Cornfield et al., suggest how to evaluate such activities.

Even best efforts to make homework truly rewarding may occasionally fail. You may find a student evading homework. Turner reports that students who want to retain self- respect and the respect of their peers and teachers will respond positively, given help rather than punishment.

Notes

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*ED = ERIC Document, on microfiche. Enquiries to NZCER or ACER. Abstracts may be available in hard copy.